

ABSTRACT OF THE DISCLOSURE

First and second load-lock mechanisms are installed in a vacuum chamber. An external arm and first and second robot arms are disposed outside of the vacuum chamber. The external arm can hold a process object
5 and can carry the held process object either into the first load-lock mechanism or into the second load-lock mechanism. The first robot arm can transfer the process object between a stock site outside of the vacuum chamber and the first load-lock mechanism and between the stock site and the external arm. The second robot arm can transfer the process object between the stock site and the
10 second load-lock mechanism and between the stock site and the external arm.